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CONTENTS.

Page

Proceedings of the Society, February, March, April, May, June 145-147

"Instruments of Music Used by the Australian Aborigines," by Keith Kennedy 147

"Aboriginal Fish and Emu Poisons," by Dr. John MacPherson 157

"Further Notes on the Worimi," by W. J. Enright 161

"Ricketty Dick," by B. L. Hornshaw 162

"The Species of Homo," by G. P. Whitley 163

"Burren Junction as a Collecting Ground," by K. M. Cobb 163

"Aboriginal Ghosts, Cannibals and Returned Dead Men," by W. J. Walton 165

"West Indian Mankind," by J. A. Ogilvie 166

Anthropological Notes, News and Personalia 168

Proceedings of the Society

FEBRUARY 21, 1933

THE President, Dr. Halcro Wardlaw, occupied the chair.

Nominations for Membership: Miss Elizabeth Mulhall, Mr. Cecil Thorpe, Mr. D. M. Fegan.

Members Elected: Miss B. E. Bertie, Rev. T. T. Webb, Mr. F. Cridland.

The lecturer for the evening was Mr. W. J. Enright, M.A., the subject "Notes on the Worimi." Part of this lecture is incorporated in the article "Further Notes on the Worimi," published in this issue of MANKIND. In addition, the lecturer said that from his informant (Becky Johnson), he learned that the name of the deity Daramulun meant "left side," and that he was thought to be a relation of Baiame, who had only one leg. The spirit world was reached by walking to a river and taking one safe path. There was another path, along which great hornets stung the traveller to death.

After thanking the lecturer on behalf of the Society, the President mentioned the gift of a number of books made by Mrs. E. Brettle as a nucleus for a suggested Thorpe Memorial Library, and also the gift of a book by Mr. F. Cridland, thanking the donors for their interest in the Society.

MARCH 21, 1933.

In the absence of the President, Vice-President Keith Kennedy occupied the chair.

Nominations for Membership: Mrs. Tennant-Kelly, Miss E. Bramell, Major W. J. Johnston, Mr. John Tipper, Mr. W. E. H. Stanner.

Members Elected: Miss Elizabeth Mulhall, Mr. D. M. Fegan, Mr. Cecil Thorpe.

Mr. E. O. Stocker then gave an explanatory talk with the film he had taken as official photographer to the Board of Anthropological Research of the Adelaide University's Expedition to Mount Liebig, Central Australia, during the winter of 1932. Seven reels of film were shown, each of one thousand feet in length, depicting incidents in the everyday life of the natives. The utmost detail was shown, and the actual time occupied in the carrying out of the various operations carefully adhered to. The photography was of an exceptionally high standard, and the film forms a valuable record of a representative tribe living in its primitive state.

On behalf of the Society, the Chairman thanked Mr. Stocker, and mentioned that the expedition of the Adelaide University was sponsored by a grant from the Australian National Research Council.

APRIL 18, 1933

Vice-President Keith Kennedy occupied the chair.

Nomination for Membership: Mr. O. H. C. D'Alton.

Members Elected: Mrs. C. E. Tennant-Kelly, Miss E. Bramell, B.A., Mr. W. E. H. Stanner, B.A., Major W. L. Johnston.

Mr. W. E. H. Stanner then delivered his lecture, "The Aborigines of the Daly River, North Australia," based on field work carried out in 1932, made possible by grants from the Australian National Research Council. The lecturer dealt with the environment and spoke of the splendid physique of these Aborigines, members of twelve tribes congregated in this area. He stated that the area is one of exceptional interest to anthropologists for the study of culture contacts, and of the economic value of the natives. Their social organization is notable for the absence of moieties, sections and subsections for hordes, which are not always exogamous, and the absence of totemism. He dealt with the problem of sorcery, and the merits of the suggested trial of natives in their own courts, or in those of the white man.

Mr. S. K. Mitchell, Honorary Mineralogist to the National Museum, Melbourne, exhibited a collection of aboriginal stone implements from Victoria and South Australia. He briefly described their material and form, and explained his method of gumming them on separate trays for exhibition purposes.

MAY 20, 1933

The Chairman, Dr. Halcro Wardlaw, announced the forthcoming opening of Gumbooya Reserve, Manly, which includes in its area the aboriginal rock carvings on Flat Rock. He also announced that the Society would be holding an Exhibition of Ethnology during the year.

Nominations for Membership: Miss G. M. Bell, Mr. E. C. H. Lousada.

Member Elected: Mr. O. H. C. D'Alton.

The lecturer for the evening was Mr. Melbourne Ward, who accompanied the Shackleford-Drongold expedition to film native life in Papua. He spoke of

various aspects of native economic life, including pottery making by the Motu and Mailu peoples, the trading voyages of the lakatois across the Papuan Gulf, in which pots are exchanged for sago, and the variation in pattern of tattooing in different localities. He also gave some interesting sidelights on the work of filming the natives, and the restrictions placed on such expeditions by the administration. Mr. Ward concluded his lecture with some native chants. An exhibit of ethnological objects gathered by the lecturer was supplemented by some Museum specimens.

JUNE 20, 1933

The Chairman, Dr. Halcro Wardlaw, announced that an excursion would be made to Jibbon during July, and that members would be circularized regarding the proposed Ethnological Exhibition to be held 11th to 15th December.

Nomination for Membership: Mr. Malcolm MacCormick.

Members Elected: Miss G. M. Bell, Mr. E. C. H. Lousada.

The lecturer, Mr. Eric Ramsden, spoke on "The Maori Land Development Scheme in New Zealand, and its Application to the Kingite Tribe of Waikato." He dealt with the history of the Waikato tribes, their conflict with the Government over the land, alliance of tribes and their defeat and return to the Kingite country, negotiations of Sir Samuel Marsden and Sir George Grey.

The land development scheme of Sir Apirana Gnata, introduced in 1929, has enabled the Maoris to repossess tracts of their ancestral lands. Its success was ensured by the support of Te Puea Herangi and her husband, Te Rata Mahuta, and grants made by the New Zealand Government. Its beneficial effect on the Maoris is illustrated by their changed attitude towards the future. Interest in their ancient customs and folk lore has been revised, and they are increasing in numbers every year.

Instruments of Music Used by the Australian Aborigines

(By KEITH KENNEDY.)

[Read at the 1932 Meeting of the Australian and New Zealand Association for the Advancement of Science, Sydney.]

FOR the purpose of classification, musical instruments can be grouped under four headings as follows:

1. *Instruments of Percussion*, in which the tone is secured by striking. *Examples*: Drums, cymbals, marimba.
2. *Instruments of Friction*, which are rubbed to make them sound. *Examples*: Nu-nut of New Ireland, East African friction-drum, musical rasps.
3. *Wind Instruments*, in which the sound is caused by a rapidly vibrating column of air. *Examples*: Flute, oboe, trumpet.
4. *Stringed Instruments*, whose sound is elicited from a vibrating string, or strings. *Examples*: Lute, harp, violin (friction applied to strings).

Examples of the first three classes have been found amongst the Aborigines of Australia, but the fourth

is absent. This is surprising, for, in most parts of the continent, the blacks are expert string makers; also they could always procure the long tendons from kangaroo and wallaby tails, which would have served admirably for stringing a musical instrument. Probably the reason for the absence of this class of instrument in Australia is that the Aborigines never adopted the bow and arrow, for the twang of the huntsman's bow is generally supposed to have given rise to the idea of eliciting music from a tautened string.

INSTRUMENTS OF PERCUSSION.

Vibration of the Ground.—Perhaps the most elemental way of producing sound by percussion that it has been my lot to hear was that done by the blacks in the mulga country near Laverton, Eastern Goldfields District, Western Australia, in December, 1920. During the night we heard, about a mile away, a corroboree in progress accompanied by muffled thuds. The blacks were rather unsettled at the time, owing to some quarrel amongst themselves, so I did not deem it advisable to go and investigate that night. Next morning, however, I went over, and found the corroboree ground deserted, but, lying around, were the implements that had been used to make the thudding sounds. They were four stout billets of wood with roughly cut handles, and near each was a depression in the earth where it had been struck to keep the time for the singing and dancing. As the hard ground was the vibrating body that gave rise to the sound waves, this kind of "drum" could be classed as one of the most primitive in existence.

Drums.—The true drum, consisting of a vibrating membrane stretched across a hollow body, is not indigenous to Australia, but the Papuan type is occasionally imported by the blacks from the islands to the north. In the account of their overland expedition from Rockhampton to Cape York in 1867, the Messrs. Jardine mention that near Newcastle Bay they saw two drums with the ends covered with lizard or snake skin, and they were informed that these were obtained by barter from the natives of the Torres Straits. As this kind of drum is not Australian, it will not be necessary to describe it here.

Stretched Skin.—Skin, usually of possum, is employed by the blacks as a vibrating medium. It is either stretched across the thighs, hair side inwards, and struck with the hand, or rolled up into a tight bundle or pillow, and struck in the same manner. At a corroboree I saw near Ingham, North Queensland, in 1918, the lubras, instead of using skin, stretched their cloth skirts across their thighs, and struck the tympani so formed with cupped hands, making a hollow booming noise.

Skin Bundle (*Pikalbara*).—When the possum skin is rolled into a bundle the hair surface is turned inwards, and, of course, the tighter the bundle, the better the sound it makes. The bundle is struck with the hand, and is solely a woman's instrument.

Among the Kalkadun and Maitakudi tribes of the Gulf country, North Queensland, the women stuff the rolled skin with feathers and other material, and it is known in the Maitakudi language as the *pikalbara*.[1]

The instrument probably once extended across the continent from North Queensland to Victoria, and the now extinct Aborigines of the latter State sometimes placed shells inside the rolled skin, so that when it was struck they made a jingling sound.[2]

Hand Clapping and Body Slapping.—Around Cooktown and further north on the Cape York Peninsula, both men and women clap their hands together to mark the time during singing and dancing. They vary the sound produced in this manner by using the flat of the hands, and by cupping them—the flat palms giving a crisp sound, and the hollow ones a hollow sound.

In North Queensland the piece of skin or cloth that is stretched across the thighs and struck during corroborees is frequently dispensed with, and the cavity between the thighs is struck instead; to give variety the outer part of the thighs are also sometimes struck.

At Port Essington, Northern Territory, it is recorded by Captain Keppel that the natives kept time by the clapping of hands, also the beating of the open hand against the hollow parts of the limbs and body.[3]

Striking Boomerangs Together.—Musical sounds can be made by causing a piece of resonant wood to vibrate. Amongst the blacks the most common way of doing this is to strike two boomerangs together. At the Ingham corroboree mentioned above, the boomerangs were specially made for the occasion. The operator held one in each hand with the points facing each other, and clicked the sides of the points together, causing them to vibrate like a crude kind of tuning fork. This is the normal way of striking the boomerangs in most parts of Australia. A different method is to hold the boomerangs side by side with the curves parallel to each other, and click the entire lengths of the implements together. An illustration of an Aluridja man of Central Australia striking the boomerangs in this manner is published by Basedow.[4]

At the Ingham corroboree the two boomerangs were manipulated by one man only, who was master of ceremonies and corroboree singer. He chanted the music and clicked the boomerangs, while the lubras supplied the "drum" accompaniment as already described, and the men danced. Earlier in the day, while preparations for the evening corroboree were going on, one of the Aborigines informed me that the singer was a visitor just down from the tablelands, and that he was celebrated for his powerful voice. My informant added that the reason he had such a good voice was because he had trained on frogs. Further inquiries brought out the information that when an Aboriginal wishes to "study" in order to become a corroboree singer, he catches a certain kind of little brown frog. It is essential that the frog be brown—a green one is no good. The frog is placed in a vessel of water, and kept there for a time until the water becomes nicely brown and "froggy." The aspiring singer then drinks the water, eats the frog, and thereby gains a strong, clear voice. This could be classed as a form of sympathetic magic, for the reasons that the frog has a loud voice, so, if he eats it, its vocal powers are transferred to his own voice.

Sounding Clubs.—The men of the Narrinyeri tribe, that once occupied the country around the mouth of the Murray River, used to knock two waddies together during corroborees. When used in this manner the waddies were designated *tartengk*, and the art of striking them was referred to as *tartembarrin*.[5]

The club is also employed as an instrument of percussion in Central Australia, for, in some of the ceremonies performed by the Kingilli moiety of the Warramunga tribe, one or two of the men beat time with a small bar of wood against a fighting club. The latter is held in the left hand and on a level with the face of the performer.[6]

Sounding Sticks.—An advance on the striking of weapons to make a sound are specially made sounding sticks, consisting of two shaped pieces of wood, one the vibrating body, and the other the striker. The earliest record of this kind of instrument was made by Captain Watkins Tench, who saw them used by the blacks around Port Jackson.[7] He wrote: "While the dance lasts, one of them (usually a person of note and estimation) beats time with a stick on a wooden instrument held in the left hand, accompanying the music with his voice; and the dancers sometimes sing in concert."

Spencer and Gillen describe four forms of this instrument played in Central Australia.[8] In the first, the vibrating stick is about 23 cm. long, ornamented at one end with two circular grooves, and at the other end with a spiral groove. In the second form the vibrating stick has two prong-like projections at the end, which are hit with the striker. The third form is

A pronged sounding stick in my collection (Fig. 5, Illustration 1), resembling the second form of *trora* described above, measures: maximum length, including prongs, 14½ in.; maximum breadth, 2 in.; maximum thickness, ¾ in. The prongs are not quite equal in length, for one is 4½ in. and the other 4⅞ in. The body of the stick is flat on one surface and slightly

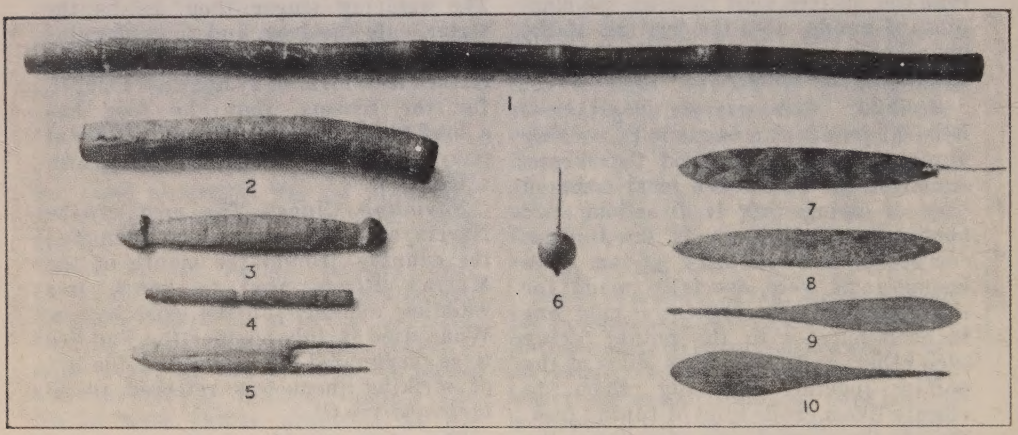

ILLUSTRATION 1.

Fig. 1. Didgeridoo, North Australia.
Fig. 2. Ilpirra (didgeridoo), Central Australia.
Fig. 3 and Fig. 4. Sounding Stick and Striker, Melville Island.
Fig. 5. Pronged Sounding Stick, North Central Australia.
Fig. 6. Gourd Humming Top, Atherton, North Queensland.
Fig. 7. Bull-roarer, Broome, West Australia.
Fig. 8. Bull-roarer converted into a *churinga*, Beria, eastern goldfields, West Australia.
Fig. 9 and Fig. 10. Bat-shaped Bull-roarers, Meekatharra, West Australia.

(Photo, C. Clutton.)

(All figures one-tenth actual size.)

similar to the second, but has a tongue that projects from between the two prongs. This tongue is held with the left hand, and the striker is allowed to fall on the other end. These three forms are called *trora* in the Arunta language. The fourth form, called *wainba*, and only used in the Engwurra ceremony, is more roughly shaped, and has a coating of red ochre. A number are made for the ceremony, and are not allowed to be seen by the women, and the tone they give out when struck is supposed to sound like the croak of a certain species of frog.

convex on the other. When struck on either of these surfaces, the note elicited is g″ (slightly flattened). The edge when struck gives a″. The shorter prong when struck halfway down its length on the side in line with the plane of either surface gives e^{b}″. The longer prong when struck on the corresponding portion gives g″ (slightly flattened). It will be noticed that the interval between the two notes obtained by striking the surface and side of the stick is slightly less than a major second. The interval between the two notes of the prongs is a major *untem-*

pered third (sometimes called a neutral third), which is often present in primitive music.

A Melville Island sounding stick and striker, also in my collection (Figures 2 and 3, Illustration 1) are made from heavy light-brown wood. The vibrating stick is a flat slab, averaging about one inch in thickness, and 16 in. in length, and terminates in a flat knob at both ends. In the centre it is 2¼ in. wide, and from there it gradually narrows down until, at the base of the terminal knobs, its width is 1½ in. at one end and 1⅛ in. at the other. Both surfaces of the instrument are slightly convex. The striker is 12½ in. in length, oval in section, and incised deeply with ornamentation. Two notes can be obtained from the vibrating stick: d″, by striking in the centre, and f″, by striking within two inches or so of either end. The interval between the notes is a minor third.*

Sounding sticks are absent on the Cape York Peninsula, but occur in the hinterland and coast line extending from the Daintree River to almost the Herbert River. Around Cairns and the Tully River they are called *kokolo*, and are made from hibiscus wood (*Hibiscus tiliaceous*), which is often hardened in fire to increase the resonance. Roth[9] says that to produce a deeper sound the distal extremity of the stick is made to rest on the foot, heel, etc., according to the particular squatting position in which the performer may happen to be. Experiment, however, shows that this merely deadens, and does not lower the note.

According to Dawson,[10] the sounding sticks once used by the Aborigines of Victoria were about 9 in. long, and 1½ in. in diameter, and were rounded and tapered to a point at each end. He mentions that their sound could be heard at a great distance.

A flat form of the sounding sticks from Western Australia, recorded by Thorpe,[11] resemble small churingas. They are known as "tatty" sticks.

Wooden Gongs.—The thick scrub or brush country around Cardwell, North Queensland, provides natural gongs in the huge flat buttresses of certain trees, which the blacks strike with sticks to accompany their corroborees. Standing out like flanges to a distance of sometimes several feet from the tree trunk, these buttresses make good vibrating bodies.

Another kind of gong, approximating the *lali* of the Fijians, was observed at an initiation ceremony at the back of Princess Charlotte Bay, North Queensland.[12] It was a hollow log split in half, with the concavity resting on the ground, and around it sat several natives who struck the convex side, making reverberations of considerable volume.

Rattles of Strung Shells.—Shells threaded on native string with the ends joined necklace fashion are shaken as rattles in parts of Australia. What probably represents one of these instruments can be seen, amongst other figures, carved by the extinct Port Jackson Aborigines on a flat rock near Wheeler Creek, Manly Cove Parish. It is figured and described by Campbell,[13] who calls it a sistrum, but it cannot be classed as such, for the old world sistrum is a rattle with a rigid handle in a frame, at the top of which metal rings, beads, etc., are loosely attached to make a jingling noise. The carving shows the aboriginal instrument laid out in an oval position, and with the two ends joined. At one end what appears to be a small loop or tassel is depicted. Another shell rattle, with the string not joined but stretched out, is carved on a rock near Gunson Trigonometrical Station, Parish of Narrabeen.[14] Mr. W. J. Walton, of the Anthropological Society of New South Wales, informed me that he knows of four carvings of these rattles on the north side of Port Jackson.

On the Pennefather River, North Queensland, strung shell rattles are

* Tuning fork used in ascertaining pitch of notes on both instruments described above is A″ = 435.

shaken by the native children,[15] and a specimen from the hinterland of Cairns is described by Etheridge.[16] Three examples from Mapoon, Batavia River, West Cape York Peninsula, are exhibited in the Australian Museum, Sydney. One is made up from valves of *Cyprœ subviridus* Reeve, another of *Arca pilula* Reeve, and the third of *Strombus campbelli* Grey. It is interesting to note that the shells are not mixed, each rattle being strung with one species only.

Baobab Rattle.—The large seed vessels of the baobab tree (*Adansonia gregorii* F.v.M.) are used as rattles in the Kimberley District, Western Australia. When dry, the seeds in the seed vessels become loose and make a rattling sound, and the native children shake the vessel or pod for amusement. Sometimes the men introduce them into ceremonial dances, for which purpose they are often incised with figures and symbols.[17]

Leaf Rattles.—Bunches of leaves, dried artificially or naturally, are shaken to make a crackling noise by the natives of north-west Central Queensland, and, for corroborees, the performers often attach small bunches to their ankles, so that their movements may cause the leaves to rustle.[18]

Instruments of Friction.

Rasp Club.—In the Australian Museum is a club, or *dowak,* from the Murchison District, Western Australia, that is also a musical rasp,* and, as far as the writer knows, this is the only kind of friction instrument made by the blacks. On one side are cut transverse rasp-like serrations, against which is rubbed a *mero* (*wommerah*) or a *kiley* (boomerang), which cause it to vibrate and give out a not unpleasant musical sound that is used for keeping time to a corroboree chant. On the handle end is a lump of gum into which a flake of siliceous stone could be embedded when the owner desired to convert the implement into a gouge, or adze, for working on wood. It is therefore a club, musical instrument and tool, all in one.*

* Aust. Mus., E.29688, presented by Mr. J. F. Connelly, 1925; described as a musical "coondie."

Wind Instruments.

The Aboriginal Trumpet, Drone-pipe, or Didgeridoo.—In parts of North Queensland, the Northern Territory, Central Australia, and the northern half of Western Australia, the Aborigines have an instrument variously called by the whites a trumpet, drone-pipe, or *didgeridoo.* It is simply a hollow tube of wood, through which the performer hums and sings. The Central Australian form of this instrument is shorter and of greater circumference than those used in other parts of the continent where they are found, and are made from branches of trees that have been hollowed out by white ants, or by decay. To make one, a section of a hollow branch is cut to the required length and cleaned out; then both inside and outside of the tube is smoothed, and a rim of black gum moulded around the end of the smallest diameter to serve as a mouth-piece. In many cases the exterior is painted with red ochre. A specimen from Hermannsburg, Central Australia, in my collection (Fig. 2, Illustration 1), measures: length, 21½ in.; internal diameter of proximal end (mouth-piece), 1½ in.; internal diameter of distal end, 2¼ in.

Sir Baldwin Spencer suggested that the word "trumpet," as applied to the instrument by the whites, is a misnomer, and that the term "conch" is more appropriate[19]; but neither is correct, for the sound of both the trumpet and the conch is elicited bugle-fashion by vibration of the player's lips, while the aboriginal instrument is really a speaking-trumpet, merely amplifying the performer's voice. To call it a drone-pipe is also wrong, for the drone implies a note or tone sus-

* Information supplied by W. W. Thorpe, late Ethnologist, Australian Museum.

tained as a pedal point throughout the duration of a melody, as is the case with the notes of the drone-pipes on the bag-pipes. The term "didgeridoo"* is much more suitable, as it is onomatopoetic, being derived from the vocalization sung through it in the Northern Territory. It also has the advantage of being non-committal.

The part of North Queensland in which the instrument is met with has been defined by Roth[20] as the area included by Cooktown, Laura, Palmerville, Maytown, Byerston, the Bloomfield River, the Daintree River, and Cape Grafton. Throughout this area it goes by the name of *yiki-yiki* (the second syllable being scarcely sounded). The instrument is longer than that of Central Australia, averaging from 7 to 9 feet. Because of its length, the player rests the larger end on a forked stick or other support as he intones into the smaller end. According to information supplied to Roth, the *yiki-yiki* was said to have been introduced to the Bloomfield from the Gulf country through the Kokowarra speaking blacks *via* Laura long before the oldest living Aboriginal at Wyalla (on the Bloomfield) was born, and that from there the Daintree River blacks got their first instrument.

A *didgeridoo* I saw at Geraldton, Western Australia, in 1925 was about 6 feet in length and much curved. It may have come from further north, for I did not notice any other in that area, nor in the Murchison District to the north-east.

On the Coburg Peninsula and the Alligator River, Northern Territory, a bamboo *didgeridoo* is made, and it has been observed as far south as Elsey Creek.[21] To manufacture one, a length of bamboo (*Bambusa arnhemica* F.v.M.) is cut and the septa at the various nodes are burnt out with a fire-stick, hot ashes, or broken with a stout rod hammered down with a stone. The resultant tube is then painted, and incised with decorations according to the fancy of the owner, and it is ready for use. A *didgeridoo* of this material in my collection (Fig. 1, Illustration 1) measures: length, 4 ft. 10 in.; internal diameter of proximal end, 1⅛ in.; internal diameter of distal end, 1½ in. It is painted near the distal end with black pigment and pipe-clay, and the proximal end, which is applied to the mouth when blowing, is bound with fabric covered with gum-cement. In one place, where the bamboo has been perforated, the hole is filled in with black gum.*

The sound of the *didgeridoo* is monotonous, for the performer vocalizes or intones a few unintelligible syllables through it that are repeated over and over again. Even the blacks sometimes get tired of its sound, for Roth mentions[22] that at times the younger boys of a camp will keep up the performance for hours at a time until at last some person gets exasperated with the noise and breaks the instrument. As a rule, however, the blacks enjoy its monotony, for Captain Keppel, when at Port Essington, Northern Territory, wrote that some of the natives admired the ship's band, but he believed that they preferred their bamboo flutes.[23]

For a diversion, the *didgeridoo* is occasionally used to imitate the call of various birds. Sir Baldwin Spencer mentions a man in a Kakadu camp, Northern Territory, who was very clever at imitating birds, such as the Native Companion, and was often called on by the others to entertain them.[24]

The instrument can also be employed for magical purposes and, amongst the Arunta, where it is known as the *ilpirra* or *ulpirra*, one of its functions when suitably treated is to charm women.[25] For this purpose a small fire is kindled and made smoky by adding a piece of green bush. The *ilpirra* is then held so that the smoke passes through it

* Applied by Basedow in "The Australian Aboriginal", 1925.

* *Note.*—This method of mending *didgeridoos* is mentioned by T. Worsnop in "The Aborigines of Australia," 1897, p. 155.

whilst the man chants an invocation, and, as part of the rite, swallows some of the smoke. In the evening, when the corroboree is in progress, he sounds the charmed instrument, and at once the particular woman he is after becomes infatuated with him.

Emu Trumpet. — Resembling the shorter kind of *didgeridoo* is the emu trumpet, which is not a musical instrument in the exact sense, but a decoy of the hunter. In shape it is a short, hollow cylinder of wood a foot or so in length, that has one end domed over with black gum. The apex of the dome is perforated and raised so as to make a little tube, which is the mouth-piece. In western New South Wales the Aborigines once used it in conjunction with a large net to entrap emus. They sounded it, holding the open end over a small excavation in the earth, whilst blowing through the tube on the domed end. The resultant drumming noise was thought by the emu to be the call of another emu, and, approaching to investigate, it was driven into the net.[26]

Goose Decoy.—A decoy for calling up wild geese is sometimes used on the Cape York Peninsula. It is made from the breast pipes (trachea) that lie just beneath the skin of the wild gander. An illustration from a photograph by Francis Birtles showing an Aboriginal blowing one of these decoys was published in the *Capricornian*, Rockhampton, Queensland, some years ago. I have the picture, but neglected to make a note of the date.

Bone Whistles.—Bird bones are blown as whistles around Normanton in the Gulf country, North Queensland. A hollow bone four or five inches in length is stopped at one end with gum, and the other end cut off abruptly, so that the sides of the tube are level. This open end is blown across to produce a whistling sound, in much the same manner as a European boy will blow across an empty cartridge case or the hollow end of a key. Of course, only one note can be sounded on this kind of whistle.

Reed Whistles.—Whistles of hollow reeds are made by the blacks of North Queensland, and are found in places as far apart as the Tully River and the Batavia River. They are very easy to make, for a reed is simply pulled out of the ground, its root-like stem is left on to block one end of the hollow stalk, and, at a distance of six or seven inches from the root, the stalk is cut off cleanly. Across this open end the performer blows in the same manner as on the bone whistle mentioned previously.

Humming Tops.—In a restricted area around Cairns, North Queensland, a humming top is made from a small spherical gourd (*Benincasa vacua* F.v.M.). The gourd body of one of these tops in my collection (Fig. 6, Illustration 1) is $2\frac{1}{2}$ in. in diameter. It is hollowed out, and a wooden spindle 7 in. long and $\frac{1}{4}$ in. in diameter passes through two holes, one at the top and the other at the bottom, protruding beyond the bottom hole a distance of $\frac{1}{2}$ in., and above the upper hole a distance of $4\frac{1}{4}$ in. The lower projection is the peg on which the top spins, and is bound with native string covered with black gum to prevent it slipping back into the gourd. The shaft of the spindle is secured in the upper hole with black gum only. Two lateral holes, $\frac{5}{16}$ in. in diameter, are burnt on opposite sides of the gourd to make a humming sound when the top revolves. To spin it, the longer end of the spindle is held between the flat palms of both hands, a rotary motion imparted by smartly moving the palms in opposite directions, and the top dropped on a flat surface of hard ground. The gourds are very brittle, so, in order to prevent them from becoming fractured, the blacks may spin them on a piece of cloth. Before the coming of the Europeans the natives made a brown coloured cloth out of bark which they steeped in water and pounded out flat, in something

like the manner that Pacific Island natives make tappa cloth. Gourd humming tops are becoming rare, and soon none will be procurable. Four of them are displayed in the Australian Museum, and have been described by Etheridge.[27]

Gum Leaves.—The art of playing on gum leaves as practised by gum leaf bands on mission stations is generally supposed to have been originated by the missionaries. Music played by these bands is, of course, modern, but it seems that the Aborigines in their primitive state elicited music from gum leaves, for Roth records[28] that at Atherton, North Queensland, he heard young boys make a sweet whistling sound by means of leaf blades. The leaf was folded along its mid-rib, and the free edges of the two halves held between the protruded lips of the player. He noted that the sound was produced not by *expiration,* but by *inspiration.* This is contrary to the method of blowing in New South Wales. Here the sound is produced by *expiration.* The leaf is folded along its mid-rib, and the lower fold pressed against the lower lip with the tips of the first and second fingers, letting the upper fold touch lightly against the protruded upper lip. When a current of air is directed against the upper fold, it vibrates rapidly. This vibration gives rise to the sound waves, so it is clear that the gum leaf, so played, is not a whistle, but must be classed with instruments that have a single vibrating reed, such as the modern clarinet.

Bull-roarers.—Practically in every part of Australia is the bull-roarer, or whirler, found. It is primarily a ceremonial instrument, and plays a very important part in the *bora,* or initiation, rites, that aboriginal youths have to pass through before reaching the status of manhood. Bull-roarers vary in size from a few inches to two feet or even more in length. The commonest variety consists of a flat slab of wood either lanceolate or long-oval in outline (Illustration 2), with a hole pierced in one end to tie the string by which it is whirled to produce a buzzing or whirring sound. Several bull-roarers that I got at Meekatharra, Western Australia, are bat-shaped (Figs. 9 and 10, Illustration 1), and when they are swung the string has to be tied to the handle, being prevented from slipping off by a small knob at the end. In Central Australia they are sometimes made from flat oval pebbles, and are similar in appearance to the stone *churingas* or totem-tablets of that region. *Churinga* is an Arunta word meaning sacred, and

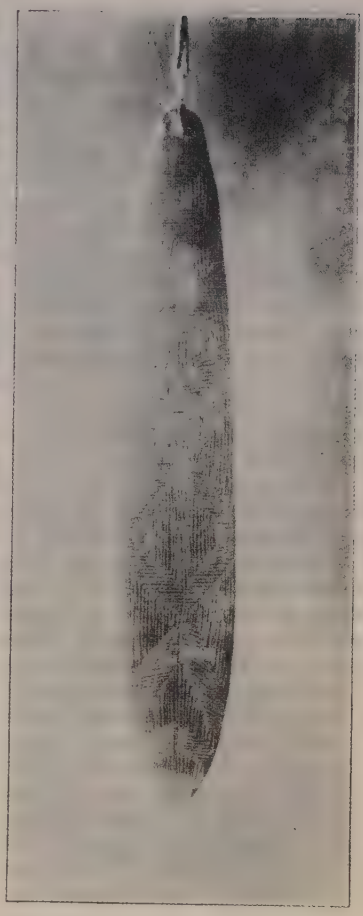

Illustration 2.
Bull-roarer, Broome, West Australia.
(One-fourth actual size.)

can therefore be used for both bull-roarers and totem-tablets, but, to avoid confusion, writers usually apply the term to totem-tablets only. A *churinga* can be converted into a bull-roarer by boring a hole at the end and attaching a string, and, *vice versa,* a bull-roarer can be changed into a *churinga* by blocking up the string hole. A wooden *churinga* I got at Beria, Eastern Goldfields, Western Australia, was once a bull-roarer, but the Aborigines evidently desired to utilize it as a *churinga,* for the string hole has been filled up with gum (Fig. 8, Illustration 1).

Previous to his initiation, a boy believes that the sound of the bull-roarer is the voice of a deity presiding over the *bora* ceremonies. This deity, or spirit, has different names and various attributes, according to the language and mythology of the tribe. Around Sydney he was known as Baiame, in other parts of New South Wales as Daramulun, while in Central Australia the Arunta call him Twanyirika. During the *bora* rites, however, the initiate is shown and handles a few bull-roarers, and their esoteric meaning is explained by the old men. They are considered full of magic, and on no account is a woman or uninitiated boy allowed to see one. Should such an unauthorized person get a glimpse of one, the penalty is severe, sometimes blindness or death.

The sacred bull-roarer used near Elsey Creek, Northern Territory, is a spindle-shaped piece of stone that only the wise men may touch, but every man has an imitation bull-roarer which he swings to make it speak to please the "debil-debil" of the sacred bull-roarer.[29]

Pleasing a spirit by sounding bull-roarers is mentioned by Sir Baldwin Spencer, who wrote that amongst the Kaitish tribe, Central Australia, is the belief in a being called Atnatu. He created himself, the stars are his wives, and he has plenty of sons and daughters. Long ago, for some reason, he became angry with his children, and banished them to the earth, and with them everything that the natives now have. If he hears the sound of the bull-roarer, he is pleased, but if not, he becomes very angry.[30]

In Central Australia the bull-roarer can be utilized for the purpose of charming a wife from a distant horde. The way this is accomplished is for the wife-seeker and a few friends to go to some secluded spot, where they spend the night chanting invocations. At dawn, one of them gets up and swings a little bull-roarer, and its sound is magically carried to the far off woman who, sooner or later, will be drawn towards the man who has charmed her.[31]

On the Endeavour, Palmer, and Bloomfield Rivers, North Queensland, a painted bull-roarer can be suspended by a string to render *tapu* anything under or near it. It is usually coloured red, and marked with white stripes, and, in some specimens, the free end, instead of being pointed or rounded, is truncate, or truncate with a nick in the centre, or is concave. They are hung so that the wind can revolve them, and one is often placed near a baby to protect it whilst the mother is away.[32] When hung in this manner, the bull-roarer is, of course, soundless, so hardly comes under the category of musical instruments.

A certain amount of skill is required in manipulating the bull-roarer. Its movements can be likened to those of the earth around the sun, for, like the earth, it has two motions: one is the revolution around the person swinging it, and the other is a secondary spin on an axis in line with the string. This latter spin gives rise to the characteristic whirring sound of the instrument. Very often the bull-roarer refuses to revolve in this secondary manner, no matter how hard it is swung. When this happens the Aboriginal will alter the orbit of its swing, and allow it to scrape once or twice along the surface of the ground.

This has the effect of starting the secondary spin, and making the bull-roarer "speak."

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Aboriginal Fish and Emu Poisons

(By DR. JOHN MACPHERSON.)

THE Australian Aborigines had an excellent knowledge of vegetable toxicology, but such knowledge was devoted more to the providing of alimentary sustenance than to the destruction of their fellow man. Many plants were used for the purpose of stupefying fish, and thus rendering them more readily captured. Some of these will be indicated in the order of their botanical families. The list does not pretend to be complete.

Family *Menispermaceæ.*

Stephania hernandiæfolia Walp. occurs in Victoria, New South Wales and Queensland. It is one of the aboriginal fish poisons, and is intensely poisonous. The root is bitter and experimentally has been shown to be highly poisonous to frogs, acting like picrotoxin. The active principle has not been determined with certainty. It has been stated to be an alkaloid: on the other hand, it has been asserted to be a mixture of picrotoxin and picrotoxinum.

Family *Leguminosæ.*

In other countries *Pithecolobium bigeminum* and *P. saman* are used as deadly fish poisons and contain (in the bark) an amorphous alkaloid, pithecolobine. It is not certain whether Australian species contain the same alkaloid, and I can find no record of our species being used to poison fish. Several species of *Acacia* were used by the native blacks to stupefy fish. Most or all of the species contain much tannin in the bark, but one can hardly imagine that such compound, of itself, would render the fish stupefied. *Acacia falcata* Willd. is the Lignum Vitæ,

Sally, or a Hickory of New South Wales and Queensland, and its bark contains much tannic acid. It was used by the Aborigines of Counties Cumberland and Camden to stupefy fish as well as being employed therapeutically for cutaneous disorders. *Acacia penninervis* Sieb. is another Hickory or Blackwood, being native to all the eastern States. The bark and leaves were used by the tribes of southern New South Wales for catching fish. When thrown into a waterhole, the fish would rise to the top and be readily caught. *Acacia salicina* Lindl. (variety *varians* Bentham), the Willow-leafed Wattle or Goobang, occurs throughout the interior of Australia, but not Tasmania. Sir Thomas Mitchell mentions that the native blacks used a bough in the waterholes to poison the fish. *Acacia melanoxylon* R. Brown is the well-known Blackwood of New South Wales. Its bark contains some poisonous principle, and the twigs have been suspected of poisoning pigs. In the Lismore district the blacks employed the bark and twigs to stupefy fish. *Tephrosia purpurea* Persoon is the "Moru," a native of New South Wales, South Australia, Western Australia and North Australia. The active principle is a saponin, and the plant is used by the native inhabitants of many tropical countries, including Australia, to stupefy fish and render them readily caught. In North-western Australia the leaves are used to poison water frequented by emus, in order to stupefy them. In India a decoction of the bitter root is used as a tonic and for dyspepsia, tympanites and dysentery. Edward Palmer mentions a species of *Tephrosia* ("Jerril-jerry"), a small shrub on the Cloncurry, in Queensland. The whole plant was broken up and placed by the blacks in small lagoons to poison or stupefy the fish. *Tephrosia purpurea* is held to be a stock poison. *Tephrosia toxicaria* Persoon of Africa has a poisonous root, and is used by the native tribes there as a fish poison. *Derris uliginosa* Bentham has an Australian habitat of Queensland and Northern Australia. In many tropical countries the pounded leaves are thrown into water to stupefy fish. This plant is also a well-known insecticide and is used in Sumatra to kill caterpillars on tobacco plants. It is also efficacious for house flies, chicken lice and dog fleas. It acts upon insects by simple contact or through the stomach. The parts used are the stems and rhizome. The active bitter principle is derrid, an acid resin yielding, when treated with alkali, pyrocatechin and salicylic acid. The active constituent is that portion of the resin soluble in chloroform. *Derris* (*Pongamia*) *elliptica* Bentham, of Malaya and other countries, is a more powerful insecticide. It has long been used as a fish poison in India, Eastern Asia, and the Malay Archipelago, including Java, one part of the root in 3,000 of water being sufficient for the purpose. The root bark contains derrid, and one part of derrid in 5,000,000 of water acts as a powerful fish poison. It is also used as an arrow poison. The powdered root is employed as an insecticide. *Derris scandens* Bentham, of New South Wales and Queensland, is a climbing plant yielding a fish poison pod.

Family *Euphorbiaceæ*.

Cleistanthus collinus Bentham has been recorded elsewhere as a fish poison, the bark being used. Our own native species, *C. cunninghamii* J. Muell, might be investigated for similar properties.

Family *Sapindaceæ*.

Jagera pseudorhus Radlk. (*Cupania pseudorhus* A. Rich.), of New South Wales and Queensland, has been used as a fish poison.

Family *Thymelæaceæ*.

Wikstræmia indica C. A. Mey.—Its Australian habitat extends from coastal New South Wales to Northern Australia. In Fiji it is known as Sinu Matajavi.[1] It is a small shrub and is

[1] *Wikstræmia fœtida* (ed.).

a reputed stock poison in New South Wales. The bark contains an acrid principle. It was used by our native tribes as a fish poison. In Fiji it is used as a native medicine, the leaves and bark of the stem being given internally as an expectorant in coughs. Externally the expressed juice of the inner root bark is used as a stimulant to sores and slowly healing wounds.

Family *Myrtaceæ*.

Barringtonia careya Roxb. (synonyms: *Careya arborea* Roxb. and *C. australis* F.v.M.), Go-onje, Gunthamarrah, Barkabah and Ootcho of the Queensland Aborigines the Broad-leafed Apple Tree of Queensland and Northern Australia. It bears edible fruit. A pulp of the leaves used as a poultice is employed for chronic ulcers. The bark of roots and stem was used by the Queensland blacks, finely beaten up, to stupefy fish in both fresh and salt water. James Murrells (or Morrill), who was shipwrecked at Cleveland Bay, Queensland, and lived with the blacks for seventeen years (1846-1863), observed that the natives of the Burdekin River used the bark of the stem to poison fish in fresh water, and the root bark for salt water. *Barringtonia racemosa* Blume is the Fresh-water "Mangrove" of the Mitchell River and elsewhere in Queensland. It grows in or near water or shallow lagoons. The Aborigines cut the bark up into small fragments, and hammered it into fine pieces on a stone. These were then placed in the water, and the fish ate them and "turned up." The root has a bitter taste and is used by Hindu practitioners as an aperient and "cooling" medicine. The seeds and bark are also used therapeutically, and the powdered fruit as a snuff, and externally in cutaneous disorders.

Francis Birtles and C. Price Conigrave mention the fresh-water mangrove as being used in stupefying fish in the Northern and North-west Australia. I am not clear, however, if this be the same species. According to Birtles, the juices of the fresh-water mangrove are stirred into stationary pools and lagoons. In an hour or so every living thing comes gasping to the surface. Tons of fish are caught by this method. *Barringtonia speciosa* Linn. Fil. is the "Mammee Apple" of Central America. It has a very wide range, extending from Tahiti, Fiji and other islands of the Pacific, through Queensland to Asia. It is known as the Island Fish Poison Tree or "Futu." It attains a height of 30 to 50 feet, and in Fiji the outer portion of the large four-angled poisonous fruit is used to stupefy and catch fish. Even our *Eucalypti* are brought into service in this connection. E. M. Curr has recorded that occasionally the Bangerang tribe of Victoria obtained fish by poisoning the water of some small lagoon. This was effected by throwing into it a quantity of fresh gum tree boughs, as the result of which the fish died and came to the surface in a few hours. *Eucalyptus microtheca* F.v.M. is the Coolibah, Tangoon or Flooded Box. In northern Queensland small branches with their leaves were cut up and placed by the native blacks in water for several days. The fish were sickened and became stupefied and easily caught. Edward Palmer states that the tree was called Jinbul by the Cloncurry Aborigines, and that the practice of catching fish by this method was universal. The inside bark beaten up and heated was used as a poultice for snake bite. The oil obtained from the leaves of this species contains phellandrene, pinene, eucalyptol, sesquiterpene and cymene.

Family *Solanaceæ*.

Duboisia myoporoides R. Brown, is the Corkwood or "Elm" Tree. Aboriginal names are Orungurabie (Clarence River) and Ngmoo. This tree yields duboisine, considerably used in medicine, and really a mixture of hyoscine and hyoscyamine, both powerful alkaloidal poisons. The Rev. Dr.

Woolls, in 1861, stated that the tree had an intoxicating property, and that the Aborigines used it for that purpose. They made holes in the trunk in which they put some fluid. This, when drunk on the following morning, induced stupor. They also threw branches into pools to intoxicate the eels and bring them to the surface. Dr. Woolls stated that he knew of an instance in which giddiness and nausea arose from remaining in a close room in which branches of this tree had been placed. The effects on fish and on human beings are what would be expected from the chemical composition of this tree. It has a faint and sickly smell, not so intense as that of *D. hopwoodii*. *Duboisia hopwoodii* F.v.M. yields the well-known aboriginal drug of addiction, Pituri or Petcheri. The active principle has been identified as nicotine. But, curiously enough, the symptoms following its use are not those of tobacco consumption, whether the tobacco be smoked, used as snuff or chewed. Aboriginal names for this plant are Monanga, Engulba, Peturr and Mingul. It is native to the interior of Australia, and is the subject of barter amongst the different tribes. It is well known as a camel and emu poison. In Central Australia the leaves are placed in water to stupefy the emu after drinking and render it readily captured and killed. Sir Baldwin Spencer narrates that in Central Australia pituri leaves are pounded up in water and the infusion placed in a wooden vessel in the scrub where it is likely to be encountered by emus. Or more frequently the leaves are put in a pool of water frequented by the emus. After drinking, the birds become stupefied, like men intoxicated with alcohol, and become an easy prey to spears. Possibly, although I find no record of the fact, fish were caught in the same way.

Family *Cucurbitaceæ*.

Luffa cylindrica Roem (synonym, *Luffa ægyptiaca* Mill.; variety, *peramara* Bailey).—This is a vine with a broad leaf and a large yellow flower, a native of North Queensland. On the Mitchell River its aboriginal name was "Bun-bun." The pod is from four to six inches in length, and, when green, was used on the Mitchell River as a fish poison. The fruit is bitter and acrid, and yields a very poisonous extract containing two principles—a bitter substance, and a saponin. If taken into the mouth, the fruit will cause a severe throat affection persisting for some hours.

Much of the information contained in these notes has been derived from the writings of J. H. Maiden, Edward Palmer and Dr. H. Basedow.

In Ceylon a fish poison is used, made from the highly toxic fruit of the "Makulu," *Hydnocarpus venenata* Gaertner (Family *Bixaceæ*). This tree is a close ally of one yielding the well-known leprosy cure.

Since writing the above I have seen the fine work on the "Medicinal and Poisonous Plants of Southern Africa," by Professor J. M. Watt and Maria G. Breyer-Brandwijk (1932). The species of *Tephrosia* used by the native tribes as fish poisons are described. *T. macropoda* E. Mey is employed to stupefy fish, and as an insect powder. Fish thus poisoned can be eaten with impunity. The roots are very toxic, but may be used medicinally. The poisonous properties are reduced if the root be charred in a fire. *T. vogellii* Hook. is the Fish Bean of Northern Rhodesia. It is used very effectively as a fish poison, the pounded root or leaves being thrown into water. Fish so poisoned are eaten with impunity. The Nyanjas cultivate the plant for this purpose. The leaf is a parasiticide against fleas, lice, ticks and bean aphis. Internally a weak infusion is useful as an anthelmintic and, possibly, might be efficacious as a "dip" for cattle. The leaf contains a yellow uncharacterized substance, a volatile aromatic liquid (tephrosal), and the

toxic principle (tephrosin). Tephrosin is especially toxic to fish, much less so, by oral administration, to other animals. The minimum fatal concentration for fish is one in fifty millions. When it is added to water, the fish at first show great excitement, but soon become quiet, change colour, become paralysed, turn over and die. Freshwater fish are more susceptible than those of salt water. Rabbits eat the leaves with impunity. One gramme (sixteen grains) given to a dog with its food had no effect. Frogs can be kept for days in a concentration strong enough to cause immediate death to fish. Crustaceans are less susceptible than fish. Dogs and rabbits, however, may be killed by hypodermic injections, death being due to respiratory paralysis. The leaf yields 0·15% and the seed 0·3% of tephrosin.

Further Notes on the Worimi

(By W. J. Enright.)

In company with Dr. Elkin, I made a visit in November, 1932, to Tea Gardens for the purpose of interviewing a half-caste lady, Becky Johnson, born in 1858 in the country of the Worimi, of an aboriginal mother. She had lost her mother when very young, and had been brought up in a white household, but associated much with her mother's people and spoke their language, Kattang. From her we had confirmation of my previous statement that Kattang was the language as far as the Manning River, and that the language of the Singleton natives was similar. The Aborigines of Newcastle also spoke the same language, but "a little harder." I have previously related that Threlkeld preached to the natives of Port Stephens, and that, coupled with his work on the Awabakal, indicates that Kattang was the language used around Lake Macquarie. It is very improbable that another tongue was spoken in the comparatively small area between Lake Macquarie and the Hawkesbury River, and we may conjecture, but can never now prove, I fear, that Kattang was the tongue used there.

William Manton, of Karuah, informed us that Kattang with a different twang was spoken at Dungog. Howitt and Fraser refer to the people of that district as the "Gringai." Manton called them Nangongan, which means from the back of the hill. We were also informed that Kattang was spoken at the Bowman, which lies west of Gloucester.

There appears to be clear evidence that the Worimi occupied the country bounded by the seashore from the Manning as far south as Norah Head and possibly to the Hawkesbury. On the north, the Manning for some distance bounded this territory and they occupied the country as far west as the Barrington Tops, which, according to the old residents of the Upper Allyn River, they visited in summer time. I was in company with my old friend the late John Hopson on the tableland when he found a stone axe-head there. They extended up the Hunter Valley as far as Singleton. Possibly their country south of the Hunter joined that of the Darkning.

Manton, when shown the lithograph of carving on Upper Keeparra Circle depicted in Fraser's book, recognized them and called them "Darung." He was unable to give any interpretation of the marks, but stated that each man who brought a boy to be initiated would mark a tree with his particular brand, and indicated the three shown on the middle of the right hand side of the page as one that was made for his

initiation, and added that if he brought a son to a future keeparra (kiapara) to be initiated, he would make similar markings on a tree; and the candidate was instructed not to make such a marking where a female would see it.

The two trees between which the path passes to the Upper Circle are called "Topi Topi," and the figure of an iguana is carved on each. At death the body was wrapped in a sheet of bark, and, after the ceremony, the object of which was to ascertain who caused the death, was interred in a deep grave, which was filled in and a hut-like structure erected over it. If the child had been a good one, the parents would remain at the grave till the grass grew on it. Meanwhile the other natives would supply them with food. The body would be laid horizontally in the grave.

"Ricketty Dick"

(By B. L. HORNSHAW.)

Medallion of "Ricketty Dick."
(Enlarged 2¼ times actual size)

IN the early history of Sydney one of the favourite outings of the young people was to drive out to Watson's Bay (that, of course, was long before hiking was introduced), and in passing through Rose Bay these parties were usually "stuck up" by the so-called "king" of that district, who was very keen on making everyone pay for passing through his *tauri* or territory. As this was a recognized thing "King Dick" received quite a large amount of money, besides sweets and tobacco, the latter being one of his favourite rewards.

This Aboriginal, who was once a chief of the Rose Bay tribe, liked to be called "king". As he grew old he became paralyzed; the boys then named him "Ricketty Dick," which name he bore until his death in 1863. He was well liked by all with whom he came into contact, and he was also a great favourite with W. C. Wentworth, our famous statesman, who thought so much of Dick that in his declining years Wentworth paid a man to look after him until his death, which took place in his gunyah at Rose Bay. Thus passed away one of nature's gentlemen.

Although one of a much abused race, he proved to be more noble than many of the so-called civilized people with whom he associated.

It was only fitting that when an exhibition was held at the Exhibition Building in Prince Alfred Park, Sydney, in 1873, when striking a medallion as a souvenir, that "Ricketty Dick's" memory should be perpetuated by having his effigy stamped on the obverse side of the coin. It is about the size of a sovereign, and made of brass, with the name of "Ricketty Dick" on top, and the date 1873 below. On the reverse side is the Australian Coat of Arms with the words "Struck at the Exhibition Mint" (see illustration).

I have one of these medallions in my collection, which I treasure very much, as I believe it is the only coin issued in New South Wales bearing the picture and name of an Aboriginal.

The Species of Homo

(By GILBERT P. WHITLEY.)

THE great Swedish naturalist Linné, in his *Systema Naturæ*, published in 1758, was the first to give the binomial scientific names we still employ for animals. His first species was Man, which he named *Homo sapiens*, adding several varieties. Many naturalists and anthropologists have studied the human species, trying to subdivide it into races or varieties, and, when fossils are taken into account, it becomes evident that several genera of men or men-like apes have existed in the past, although opinion is divided as to whether there is more than one species alive nowadays. Almost one hundred specific or varietal names have been proposed for the genus *Homo*, but many of them are synonyms, or others, like *Homo bifstickius* and *Eunuchus sapiens*, merely applied in fun. The Polynesian race, called *Homo polynesiæ* and *tahitiensis* in some books, was first distinguished by Bory de St. Vincent in 1825 as *Homo neptunianus* race β Océanique, and formally named *occidentalis* by Voigt (Theirreich von Cuvier, i, 1831, p. 68). The Australian Aboriginal was named *Homo australasicus*, and the extinct Tasmanian *H. melaninus* by Bory (*Dict. Class. d'Hist. Nat.*, viii, 1825, pp. 308 and 323).

Burren Junction District as a Collecting Ground

(By K. M. COBB.)

THE town of Burren Junction lies 20 miles to the north of the Namoi River, and about 400 miles north-west of Sydney; it is the railway junction to Pokataroo (Collarenebri) and Walgett, and is the centre of a large and important pastoral district.

The country all around is flat, with stretches of black soil plains, well grassed, broken by belts of timber and patches of scalded ground, bare and windswept. No hills or mountains are to be seen, except in one direction faintly and only in clear favourable weather; this is the Nandewar Range, to the north-east of Narrabri, distant about seventy miles from Burren Junction.

The general outlook for many miles in every direction is tediously the same: low timbered ridges, their elevation slightly noticeable only above the plain, often surrounded by bare, scalded ground. These bare patches,

to a very limited extent, resemble those to the west of the Darling River, but there are no sandhills worthy of the name; low banks of dust only have piled up, blown by the wind around and across these bare areas.

At their margins with the black soil the storm water rushing off has formed shallow depressions and in some instances small swamps, and here on the hard ground the Aborigines formed their camps, lived, hunted, and made their implements while the water lasted, which was generally through the winter and early summer, before retiring to the river. These camps are easily determined by quantities of fire stones (lumps of burnt clay) in heaps and in scattered patches.

As far as one can gather, there is only one outcrop of anything approaching solid rock in the district, that being a felspathic sandstone found on a low pine ridge on Bugilbone Station, one mile from the river, being too soft for making implements, and suitable only for use as pigment. One is therefore confronted by the question: where did the stone, from which the numerous implements were made, come from? This is answered in part by the Mines Department to a query: "Grey Billy, which is a superficial quartzite, occurs as isolated patches in the country around Burren Junction."

This silicified stone, therefore, appears to be the principal material used, but other specimens submitted to the above department, and which showed work, were pronounced quartzite, jasper, chalcedony and chert, and appear to have been brought from a distance by trading, etc.; certainly this appears to be the case of two fairly large and solid nether grinders of quartzite which were collected.

Almost all silicious stones found appeared worked, some with moderate, others with superior skill; but in the case of simple flakes in some instances the fracturing probably was due to natural causes (expansion and contraction), but the larger percentage showed the bulb of percussion.

Practically all the specimens were found 16 to 20 miles from the river; and, although searchings of a limited nature were made close to and about there, nothing was found worth recording.

From implements collected, lithic culture appears to have been of a high order, there being considerable quantities of various types, some apparently of great antiquity, betrayed by signs of weathering. Scarcity of stone was shown by the utilization of pebbles and rough stone of a refractory nature, while quantities of different coloured specimens show the artificer's love of beauty. Various scrapers of the usual conventional designs were found, displaying considerable amount of high-class secondary chipping.

Among the most interesting specimens were chipped back crescents, resembling the Victorian type, with secondary chipping on the thin edge; chipped back surgical points similar to those found on the coast; groovers (duck bill) with definitely worked nose; Tasmanoid scrapers in limited quantity; chert flakes resembling circumcisional knives. No elouerας were found.

Ground axes, mostly pebble, some ancient, weathered and blunt, while others were well preserved, several roughly hewn, but well ground.

Ground wedges, one elongated, eight by four by one and a quarter inches.

Interesting types of skinning knives, ground, ranging from a ground edge of one and a quarter inches to a size bordering on small axes, some made from ground axe blade chips re-ground on the fractured side.

Axe chopping appears to have been popular and strenuous, considering the numbers of broken specimens found.

Grinders, top and nether, in quantities; the former found mostly in good condition, the latter rarely so, being fractured, accidentally or otherwise.

Two fine solid quartzite bottom grinders measuring 12 by 9 by 2 inches and 8½ by 4½ by 2 inches respectively, one desert sandstone 18 by 20 inch lower grinder, similar to those described by Horne and Aiston, with two concave grinding surfaces as "Munyeroo mill stones."

Flaking stones and pounders, but no flaked pebble axes were noticed, nor choppers.

Samples of pigment collected showed great scarcity of material, except white; the coloured, comprising different shades of browns, reds and yellows, were small and well used up.

No stone artefacts can possibly have been made for over a hundred years in the district, but some look astonishingly new; apparently the ravages of time have left them unimpaired. Then how old are the weathered ones?

Aboriginal Ghosts, Cannibals, and Returned Dead Men

(By W. J. WALTON.)

WIDE BAY, on the Queensland coast, is in the neighbourhood of Fraser Island, whose north-east extremity was named by Captain Cook "Sandy Cape." Wide Bay was visited in 1842 by a Mr. R. S. Russell,[1] who found in the southern part of the bay a navigable river, suitable for a considerable distance for vessels of light draught. It was called by the natives "Monobocola." On its waters at certain seasons were many ducks and swans, and its headwaters was the habitat of the Bunya-Bunya Pine, a tree that grew straight as an arrow for one hundred to three hundred feet, and whose large cones were full of edible nuts. On this river Mr. Russell found large numbers of natives, who at certain times went up and down its course to follow the food supply, and who, when the nuts were ripe, assembled for a gargantuan feast. On this visit Mr. Russell found living amongst the natives a white man—a runaway convict named Davis, who had run away from the convict settlement some fourteen years before, and from the time of his going had never been heard of. When a boy only eleven years old he was for some offence transported, and had run away two years afterwards. When Mr. Russell first met with him he had almost forgotten his old language, but on recovering it again he was persuaded to return to Morton Bay.[2] So much had he endeared himself to his black friends that they mourned for him as a brother, following him to a great distance with every expression of sorrow. One of Davis' statements relating to his life was that they supposed him to be the spirit of a deceased Aboriginal. It would appear that when the Wide Bay Aborigines first saw the whites, they supposed them to be the ghosts of their own dead men come back, and if anyone traced a resemblance to a deceased relation or friend, he took him under his protection, fully believing it was his son, brother, or whoever it might be, returned to him. In such a case a white man had nothing to fear from the tribe to which his patron belonged. The common belief of the Wide Bay Aborigines was that when one of the tribe died, or was killed in battle, his ghost wandered for a time over the sea, but always returned. They knew the colour of the ghost's spirit was white, because in the rare cases where the act of cannibalism was committed, the skin was drawn off, and the flesh washed before cutting it up. When treated in this way the flesh of an Aboriginal is said to have been white.

Davis is responsible for the statement that the Wide Bay natives would sometimes kill and eat a fat white man if he were not claimed by any of the tribe; but they would not skin him, as they supposed him to have already been skinned when eaten in a former existence as a black. In cutting a man up they first opened his back, and having extracted the bones from the legs and arms, they were eaten by the men as titbits. Then they opened the head and picked it; the heart and viscera were given to the gins.

References.

(1) *Journal Royal Geographical Society*, XV.
(2) Davis was pardoned.

West Indian Mankind

(By J. A. OGILVIE, Porus, Jamaica.)

IN accordance with their usual custom in dealing with the aboriginal peoples of the new world, the Spaniards had practically exterminated the Arawak Indians of Jamaica when the British captured the island in 1655. The Arawaks are described as being of gentle and peaceable disposition, rather short and stout, copper coloured, with straight black hair and flattish noses. They probably came from the South American mainland, as tribes of Arawaks still exist in British Guiana.

At the time of the British occupation the Arawaks were only to be found in the mountain fastnesses where they had taken refuge from the cruelty of their Spanish masters, and where they were joined from time to time by some of the boldest and most resolute of the African slaves. Thus originated the Maroons, who were destined to play such an irritating and disturbing part in the early settlement of the island, and whose depredations and savage raids cost the colony so much loss in human life and treasure during the first hundred and forty years of its existence.

In the Lesser Antilles, the general policy of the English towards the Caribs, where any remained, was conciliatory, but they were driven out of St. Kitts and from St. Vincent; most of the Caribs were transported by the English to the Mosquito Coast of Nicaragua in 1796. These latter, according to some authorities, already had a strain of negro blood, accounted for by the loss of two Spanish slavers off the St. Vincent Coast in 1635. Their descendants are still thriving at Cape Gracias à Dios, a province of the Nicaraguan Republic.

The Caribs were a strong, war-like and long-lived people, many of them reaching the century mark, yet a few rough rock drawings, a few hatchets, axes and spear-heads of stone found in Guadaloupe, Porto Rico, St. Vincent and others islands are about all that remains of them in the West Indies today.

It is generally believed that climate and environment exercise a modifying influence on man's physiognomy, and this has been noticed in the United States where, in certain of the far-western states, the white Americans are beginning to acquire features of a distinctly Red Indian type.

Some such change appears to be going on among the blacks in the West Indies, for the old African type of face seems to be gradually disappearing, and, in its place, we nowadays constantly meet black persons with the straight noses, thin lips, and regular features of the European.

Of course the white and black races have been mixing freely in the West Indies for hundreds of years, with the

result that some of our white families harbour a mere soupçon of black blood in their veins, whilst quite a few of our coal-black citizens own an Englishman, Scotchman or Irishman for a grandfather or great-grandfather.

To this day in some of the maroon families the skin is still occasionally noticed to exhibit a slight coppery tinge, and the hair is somewhat longer and more wavy than that of the ordinary black Jamaican, although all the original Arawaks must have died out more than two hundred and fifty years ago. This seems to indicate that aboriginal blood is very persistent.

Alcoholic intemperance in a dark person of either sex often, in the writer's experience, justifies a suspicion of remote white blood, for the African has ever set the Caucasian an example in the moderate use of alcoholic beverages, and very seldom practises the immoderate excesses which so demoralize Caucasian peoples. The dark West Indian worthily upholds ancestral tradition and control in this respect. Does this signify a stronger or less sensitive nervous organization in the dark race?

Man in all his colours and varieties thrives and luxuriates exceedingly in these sun-kissed isles of the west, the population problem being further complicated by the presence of thousands of Chinese and East Indians, who improve vastly in health and wealth after a short residence. The Chinese readily mate with the native woman, usually preferring those of a brown colour, but the East Indians are more clannish than the other races in their love affairs, and mostly live to themselves, intermingling as little as possible with the other elements in the population. It is to be hoped that the West Indian in the centuries to come will possess all the virtues of all the races and none of their vices, for he certainly will be a very mixed product. The Chinese tend to grow taller in the West Indies, just as the Japanese do in the United States.

The Haitian black was probably derived from tribes in the more central parts of Africa, and not from the Congo and Guinea Coast of West Africa as was the Afro-American and British West Indian, for he is distinguished by abnormally large sexual organs, which physical peculiarity is not, I believe, by any means so commonly observed among the dark peoples of the other islands. There is a considerable leaven of French blood in the Haitian mass, and Haitians of every class exhibit all the mercurial vivacity of the Frenchman, but Haiti presents contrasts in intellectual matters which are little short of amazing, the cultured classes commonly speaking three or four languages fluently, whilst the peasants and labourers are unspeakably ignorant, illiterate, and superstitious. Some improvement has, however, been made of recent years in the direction of public education. During the eighteenth century several shiploads of slaves were introduced into Haiti from Madagascar, and this element in the Haitian population is still in evidence; the admixture of Malagassy, African and French blood producing an exceedingly handsome type of human being, the women especially, with their brown skins, straight features, flashing black eyes, and long black hair, being perfect pictures to look at.

The cleverness which the black West Indian exhibits in the schools, colleges and learned professions strongly points to a cultural past in the history of the race, for the conscious experiences of man's forefathers for thousands of years back are deeply recorded on his brain cells, and, just as the embryo goes over the organic form of the species, so must the child repeat the intellectual developments of past mankind.

The Afro-West-Indian takes a prominent part in negro education in the United States, and already the jealousy of the Afro-American is being evinced, it being believed in many

quarters that the Afro-West-Indian, with his superior education and training in the freer social and political atmosphere of the British colonies, is a better all-round man than his American cousin.

The West Indian blacks show a constitutional adaptability to climate which is positively astonishing, grown up men and women migrating by the hundreds to the northern states and thriving and fattening on the severe winters of New England in a remarkable manner. The hardships of slavery weeded out the weaklings, and as a result the race is now tough, hardy and vigorous.

Taken altogether, the dark West Indians are a people of great intellectual vigour, much versatile talent, and unconquerable vitality, who promise to take an important part in the future progress and development of both North and South America, and already in advanced Jamaica, the incomparably beautiful "Queen of the Antilles," to whom all the other Caribbean isles pay homage, the establishment of a first-class university which will attract the youth of the world is being discussed by eminent educationists.

Anthropological Notes, News and Personalia

On July 29 an official expedition was undertaken by the Society to view the rock-carvings at Jibbon, National Park. A number of cave paintings near Cabbage Tree Creek were also inspected, and an enjoyable day spent.

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Mr. C. M. Cobb is making a return visit to Burren Junction, and will resume collecting artifacts in that area.

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Efforts are being made to get the unique aboriginal fisheries at Brewarrina restored. The word Brewarrina means "fisheries" in the language once extant in that locality, and refers to the fish maze made of rocks on the Barwon River. This is one of the very few permanent structures that the blacks are known to have built. The Director of the Australian Museum (Dr. Charles Anderson) wrote to the Chief Secretary, State of N.S.W., who has taken steps to see what can be done about renovating them. The Brewarrina Town Council has also interested itself in the matter.

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Mr. W. H. P. Kinsela is going to Goulburn to investigate possibilities of collecting stone implements in that district and to search for an aboriginal burial ground he has heard about.

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The formation of a sub-committee to investigate and tabulate all aboriginal rock carvings in the Sydney area is being considered by the Council.

To manage the proposed Anthropological Exhibition, a committee has been formed consisting of Messrs. R. H. Goddard, W. H. P. Kinsela, R. Turner, F. McCarthy and K. Kennedy.

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In the Queen Victoria Buildings the Historical and Ship Lovers' Gallery has on display a collection of ethnological specimens from the South Seas. The exhibition was arranged by Mr. J. R. Tyrrell, and the proceeds are in aid of the Sydney Boys' Naval Training Depôt, Snapper Island.

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During Music Week commencing August 19 the Music Week Committee will inaugurate a great musical exhibition in the Blaxland Galleries, Farmer's. Among the exhibits will be displays of primitive and antique musical instruments from various parts of the world. This exhibition is the first of its kind to be held in Australia, and the material gathered together will represent many thousands of pounds. Mr. Keith Kennedy has been appointed curator.

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Membership of the Society has now passed the hundred mark.

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The ethnological galleries of the Australian Museum are being rearranged to allow of the display of material from Polynesian and Melanesian areas not previously represented. Specimens recently received will be added, particularly from New Guinea, the Solomons, Indonesia and Africa.

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